

A NEW CHIGGER (ACARINA, TROMBICULIDAE)  
FROM A BAT, *TADARIDA FEMOROSACCA*,  
TAKEN IN SONORA, MEXICO

RICHARD B. LOOMIS AND LYNELL K. TANIGOSHI<sup>1</sup>

Department of Biology,  
California State College at Long Beach

INTRODUCTION

Examination of more than 1200 individuals representing 25 species of bats from northwestern Mexico has resulted in the recovery of more than thirty five species of chiggers. The following new species was taken from a single pocketed free-tailed bat obtained in southern Sonora. It is tentatively placed in the genus *Trombicula*, *sensu lato*, of the tribe Trombiculini, as it does not seem to belong to any of the other genera which regularly parasitize bats of the New World.

The new species described below bears the name of the collector and illustrator and we wish to extend our appreciation to him for his contributions.

*Trombicula spathi*, sp.n.

Figure 1

*Types*: Larvae, holotype and 17 paratopotypes from 13 kilometers south southeast of Alamos on the Rio Cuchujaqui, Sonora, Mexico, from a pocketed free-tailed bat, *Tadarida femorosacca* (Merriam), original number LCS650718-2, taken 18 July 1965 by L. C. Spath, R. B. Loomis and J. L. Fowler. The types are in the chigger research collection, California State College at Long Beach, and paratypes will be distributed to appropriate institutions and individuals.

*Diagnosis*: LARVA. Similar to *Trombicula usitata* Brennan 1965, but differing from it in having 1 long nude and 6 branched setae on palpotarsus; posterior margin of scutum slightly rounded; coxa III with two branched setae; and one nude mastitarsala III.

*Description*: LARVA. Holotype (measurements in microns, with differences among paratypes listed in parentheses).

Body: Fully engorged, 354 by 224, color in life orange; eyes 2/2, anterior larger, ocular plate distinct, color in life red, length across both eyes 25, width 10.

<sup>1</sup> Present address Department of Biological Control, University of California, Riverside.

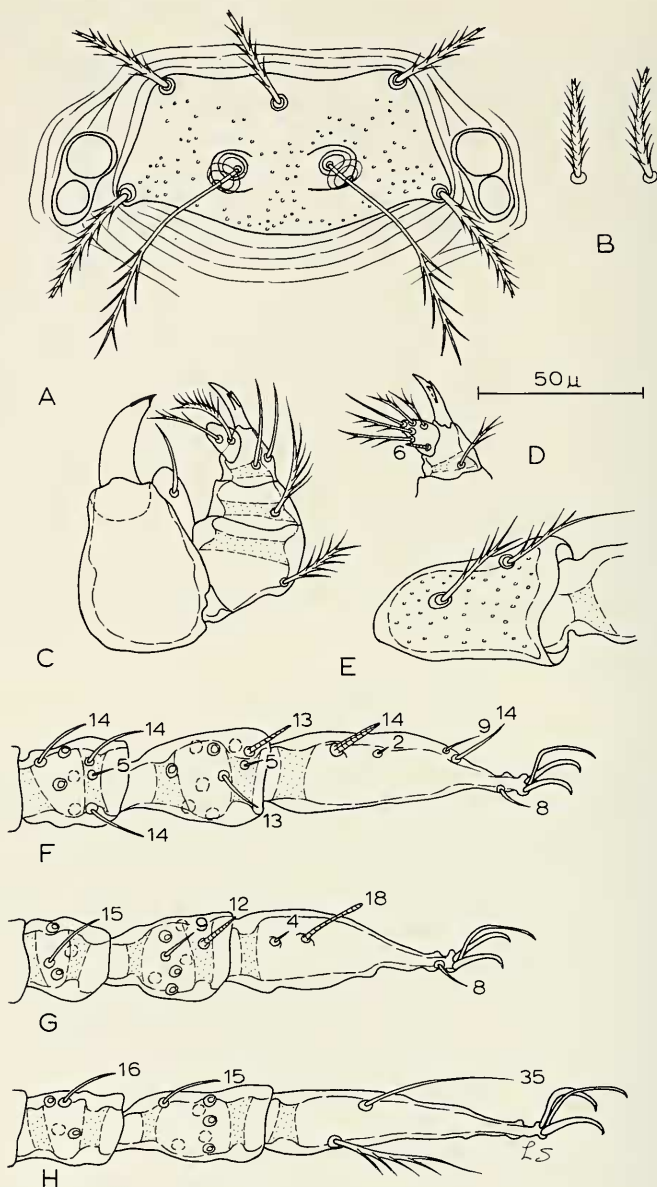


Figure 1. *Trombicula spathi*, sp.n.

A. Scutum and eyes; B. Body setae, d, dorsal v, ventral; C. Gnathosoma, dorsal aspect; D. Palpotibial segment, ventral aspect; E. Coxa III; F., G., H., Legs I, II, and III, with nude setae (measurements in microns) and representative branched setae.

Dorsal setal formula 2-6-6-6-4 + 20, total 54; humeral seta 31, seta of first posthumeral row 28, posterior dorsal seta measuring 24. Ventral setal formula 2-2 + 24, total 28; first sternal seta 24, posterior ventral seta measuring 22. Total body setae 82.

Scutum: Subpentagonal, posterior margin weakly rounded; antero-lateral setae slightly shorter than other subequal scutal setae, scattered puncta; sensilla flagelliform with 5-7 branches on distal half; sensillary bases anterior to bases of PL's.

Scutal measurements of holotypes and (in parentheses) the mean and range of 10 paratypes: AW, 55 (59, 55-57); PW, 75 (76.1, 73-78); SB, 21 (22.3, 21-24); ASB, 21 (22.8, 21-24), PSB, 17 (18.9, 17-22); AP, 29 (28, 26-29); AM, 21 + (24.1, 22-27); AL, 27 (26.3, 23-30); PL, 34 (31.2, 30-34); S, 56 (55.4, 49-59).

Gnathosoma: Cheliceral blade long and slender, slightly curved, with tricuspid cap; cheliceral base punctate. Capitular sternum with pair of branched setae. Galeala nude. Palpal setal formula B/B/NNB; palpotarsus with one long nude and six branched setae and tarsala, 6, palpotibial claw trifurcate, with central prong largest and curved inward.

Legs: Leg I coxa, trochanter, and basifemur each with branched seta, telofemur with 5 branched setae, genu with 4 branched setae, 3 genualae, and microgenuala, tibia with 8 branched setae, 2 tibialae, and microtibiala, tarsus with approximately 18 branched setae, striated tarsala (13), microtarsala, subterminala, parasubterminala, and pretarsala; leg II coxa and trochanter each with branched seta, basifemur with 2 branched setae, telofemur with 4 branched setae, genu with 3 branched setae and dorsal genuala, tibia with 5 branched setae, and 2 dorsal tibialae, tarsus with approximately 14 branched setae, striated tarsala (16), microtarsala, and pretarsala; leg III coxa with 2 branched setae, trochanter with branched seta, basifemur with 2 branched setae, telofemur with 3 branched setae, genu with 3 branched setae and dorsal genuala, tibia with 6 branched setae and dorsal tibiala, tarsus with approximately 12 branched setae and short mastitarsala. Lengths of legs (holotype) I, 214; II, 225; III, 256; total index, 695. All legs with segments punctate and ending in two lateral claws and a long slender median empodium, all without tenent hairs (onychotriches).

*Ecological notes:* The larvae of *T. spathi* were found on the wing membranes. The host was caught in a mist net placed over a shallow pool along the Río Cuchujaqui which flows through a mixed tropical deciduous and thorn forest.

*Specimens examined:* 18 larvae of type series.

LITERATURE CITED

- Brennan, J. M. 1965. Two new species and other records of chiggers from Texas (Acarina: Trombiculidae). *Acarologia* 7:79-83.
- Vercammen-Grandjean, P. H., 1960. Introduction a un essai de classification rationelle de larves de Trombiculinae Ewing 1944 (Acarina-Trombiculidae). *Acarologia* 2:469-471.

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